Annual Report 2012-2013

Office of Climate Change, Energy Efficiency & Emissions Trading

Newfoundland Labrador

MESSAGE FROM THE MINISTER

In accordance with government's commitment to accountability, I am pleased to present the 2012-13 Annual Report for the Office of Climate Change, Energy Efficiency and Emissions Trading, which is a central agency located within Executive Council. As a category two government entity, this report addresses the Office's activities and outputs from April 1, 2012 to March 31, 2013, which is the second reporting period for the Office's 2011-2014 business plan. As Minister, I am accountable for the results that are reported in this document.

The Office of Climate Change, Energy Efficiency and Emissions Trading (CCEEET) has taken significant steps over the past year to enhance the province's ability to tackle climate change and adapt to the impacts. The Office works to advance action that effectively balances economic and environmental considerations. By strengthening the evidence base, providing expert advice to departments, and collaborating with other governments and stakeholders, it has strengthened our capacity to address these challenges.

The past year was a significant one for the Office as it led the development and launch of *Turn Back the Tide*, the province's first-ever public awareness campaign on climate change and energy efficiency. The campaign was designed to create awareness and inspire action. At the heart of the campaign is a comprehensive and user friendly website www.turnbackthetide.ca with dedicated portals for individuals, businesses, and communities. The website is regularly updated and features innovative tools, a 'what's new' page, and facts and figures for Newfoundlanders and Labradorians.

The Office continues to drive forward the implementation of commitments made in *Charting Our Course: Climate Change Action Plan 2011* and *Moving Forward: Energy Efficiency Action Plan 2011*. These documents set out government's vision and goals alongside commitments for action across the economy. Looking forward, the Office will advance the commitments contained in the Action Plans, including developing a framework to tackle greenhouse gas emissions in the industrial sector, deepening understanding of how we can enhance the resilience of communities to a changing climate, and the release of resources aimed at improving the sustainability of buildings.

Tom Hedderson

Honourable Tom Hedderson

Minister Responsible for the Office of Climate Change, Energy Efficiency and Emissions Trading

Table of Contents

1. Overview 3

1.1 Vision 3
1.2 Mandate 4
1.3 Mission 4
1.4 Lines of Business 4

2. Shared Commitments 5

3. Key Accomplishments and Priorities 6

4. Report on Performance 8

Issue 1: Climate Change Adaptation 8

Issue 2: Energy Efficiency and Greenhouse Gas Reduction 14

5. Opportunities and Challenges 23

6. Appendix A: Strategic Directions 26

7. Appendix B: Financial Statements 27

1. OVERVIEW

The Office of Climate Change, Energy Efficiency and Emissions Trading (CCEEET) is a central agency located in Executive Council. CCEEET has lead responsibility for policy and strategy on issues relating to climate change and energy efficiency. The Office is responsible for establishing a path forward for the province on these issues, advancing sustained action that effectively balances economic and environmental considerations, including deepening public awareness, understanding and engagement.

The Office also undertakes focused research and analysis to enable the province to maximize opportunities and minimize risks from climate change, and the move towards a low-carbon global economy. The Office's research and analysis supports informed decision making and includes projections of provincial greenhouse gas emissions, research on the impacts of climate change, and exploring key policy issues such as energy efficiency standards and building codes. Through engaging with outside entities and stakeholders, CCEEET also seeks to draw on their input and expertise.

In addition, the Office works with other departments to better integrate climate change and energy efficiency considerations into current and future programs, services, legislation and regulations, and ensures effective coordination across government. The Office acts as an advocate on climate change and energy efficiency within government to raise the profile of these important issues, assists departments in understanding the implications for their work, and recommends policy approaches.

The Office also advances the province's interests in regional, national and international forums on climate change and energy efficiency, and represents the Provincial Government on a range of federal, provincial and territorial forums. CCEEET engages external stakeholders to deepen Government's dialogue on policy and strategy development, including large industrial companies, industry associations, non-governmental groups, academia, the electrical utilities, and the Nunatsiavut Government and Innu Nation.

The Office is currently comprised of eight staff members (six female and two male) and is located on the 5th Floor, West Block, Confederation Building, St. John's.

During fiscal year 2012-13, the Office expended $1,122,149 to achieve its mandate. This funding was used for salary and operating costs, and for professional service contracts for work in support of CCEEET's mandate, in particular the implementation of the *Charting Our Course: Climate Change Action Plan 2011* and *Moving Forward: Energy Efficiency Action Plan 2011*. Additional financial detail is provided in Section 7.

1.1 Vision

The vision of the Office of Climate Change, Energy Efficiency and Emissions Trading is of a province that achieves economic, social and environmental success by effectively integrating progressive action on climate change and energy efficiency.

1.2 Mandate

The mandate of the Office is to lead strategy and policy development across government in the areas of climate change, energy efficiency and emissions trading.

1.3 Mission

By 2017, the Office of Climate Change, Energy Efficiency and Emissions Trading will have advanced the province's capacity to reduce greenhouse gas emissions, adapt to the impacts of climate change and improve energy efficiency.

The mission statement identifies the priority focus areas over two planning cycles. It represents the key longer-term results that the Office will be working towards as it moves forward on the strategic directions of government. A full mission statement including measures and indicators has been included in the Office's 2011-14 Business Plan.

1.4 Lines of Business

The Office of Climate Change, Energy Efficiency and Emissions Trading is responsible for four lines of business. The lines of business have been expanded from three to four for this planning cycle to better reflect the nature of the ongoing work of the Office.

Policy and Strategy Development: The Office has lead responsibility within government for policy and strategy development on climate change and energy efficiency. This includes analyzing the implications of different policy approaches to achieve government's greenhouse gas reduction and energy efficiency targets and objectives, understanding the impacts of climate change, identifying economic opportunities for the province, assessing the implications of national and international developments for the province, and overseeing delivery of the 75 commitments in the Climate Change and Energy Efficiency Action Plans owned by 13 different entities, including the Office (which is responsible for 17 commitments).

Strengthening the Evidence Base: Effective action on climate change and energy efficiency must be based on a sound evidence base. The Office is responsible for undertaking research and analysis, and collecting data and information from a variety of sources to inform policy-making in the areas of climate change mitigation, climate change adaptation and energy efficiency. This work includes identifying and addressing information and data gaps through a systematic, long-term approach that requires the use of both internal and external expertise.

Promoting Government-wide Action: The need for Government leadership was a major theme arising from the consultations on climate change and energy efficiency held in 2010. It forms the basis of one of the key goals in both the 2011 Climate Change Action Plan and 2011 Energy Efficiency Action Plan, namely, a commitment that government will lead-by-example. To support that goal, the Office provides

specialist knowledge and expertise to government departments and agencies to strengthen their understanding of climate change and energy efficiency, and to help them integrate these issues into their ongoing operations, programs, legislation, and regulations. The Office aims to drive action and ensure a coordinated approach to the opportunities and challenges, so resources can be directed to where they will have the most impact.

Representing the Province in Intergovernmental Forums and Engaging External Stakeholders: The Office represents the province's interests at officials-level in regional, national and international forums. The Office has an extensive network of contacts in other jurisdictions, which it actively engages to advance the province's policy objectives. In addition, the Office works with a wide range of external stakeholders to help inform policy analysis and guide the implementation of commitments, including large industrial companies, the electrical utilities, industry associations, Memorial University, non-governmental organizations, and the Nunatsiavut Government and Innu Nation.

2. SHARED COMMITMENTS

Shared commitments represent those goals and objectives that could not be met without the participation and actions of partners. In much of CCEEET's work, collaboration and partnership is integral to the achievement of the objectives identified in the 2011-14 Business Plan. Climate change and energy efficiency are cross-cutting issues that affect all economic sectors and government departments. CCEEET plays a key role in helping to integrate climate change and energy efficiency into the work plans of provincial departments and agencies.

From understanding and adapting to the impacts of climate change, to driving a major shift in the uptake of energy efficiency, achieving success depends on better integration of the issues within, and collaboration among, Provincial Government entities, other governments, communities and external stakeholders. The Provincial Government's 2011 Climate Change and Energy Efficiency Action Plans demonstrate how wide-ranging the issues are, as the Plans touch on all sectors of the economy, from large industry and small and medium-sized businesses, to households and individuals. In 2012-13 CCEEET oversaw the monitoring and implementation of the 75 commitments that span the two Action Plans. These commitments are owned by 13 separate government entities. Successful delivery of all the commitments can only be achieved through the sustained effort of many partners within government.

Much of the work completed by CCEEET is guided by the Ministerial and Deputy Minister Committees on climate change and energy efficiency. These Committees provide a valuable forum for discussion and cooperation, and a mechanism to advance Action Plan commitments. The departments represented on these Committees are: Environment and Conservation; Natural Resources; Finance; Innovation, Business and Rural Development; Transportation and Works; Intergovernmental and Aboriginal Affairs Secretariat; and Municipal Affairs.

As Government continues to move forward with the implementation phase of the Action Plans, ongoing effort is needed to promote effective collaboration and drive progress.

3. HIGHLIGHTS AND ACCOMPLISHMENTS

***Turn Back the Tide* Campaign**

On September 17, 2012, the Office launched *Turn Back the Tide*, the province's first-ever public awareness campaign focused on climate change and energy efficiency. The development and roll-out of the campaign fulfills a commitment in *Charting Our Course: Climate Change Action Plan 2011*.

The campaign recognizes that climate change is one of the most important long-term challenges facing Newfoundland and Labrador. The campaign was developed in direct relation to feedback received from province-wide consultations in 2010. One of the key messages to Government was the need to raise awareness in order to drive action.

The goals of the campaign are to help people understand what climate change is and how it affects them, and to promote ownership of the issues, inspiring people to do more. *Turn Back the Tide* is an integrated campaign with television, print and online components. At the heart of the campaign is a website www.turnbackthetide.ca, which was designed to provide a comprehensive, user-friendly and authoritative 'one-stop shop' for information, advice and tips. The site is targeted at homeowners, businesses, and communities providing tailored information on ways to reduce greenhouse gas emissions, promote energy efficiency and prepare for the impacts of climate change.

It also features two innovative, custom-designed interactive tools: (1) a visual *Interactive House* enables users to navigate areas in and around the home and receive tips on ways to take action, and (2) a *Carbon Calculator* helps individuals determine the total greenhouse gas impact of their activities. Individuals can see how their impact compares to the provincial average, and receive customized suggestions on how to reduce their carbon footprint.

All the other components of the campaign seek to drive people to the website. Two videos were developed for the campaign – 'Climate Change is Here' and 'I Can Make a Difference'. The videos focus on raising understanding of climate change and highlight things residents can do to make a difference. Television commercials based on these videos began airing after the launch. Shorter versions were used for pre-roll on the internet.

The Office has also utilized effective partnerships, such as with the St. John's IceCaps, to help extend the reach of the campaign to new audiences.

Implementation of the 2011 Climate Change and Energy Efficiency Action Plans

A key priority for CCEEET is the delivery of the 75 commitments contained in *Charting Our Course: Climate Change Action Plan 2011* and *Moving Forward: Energy Efficiency Action Plan 2011*. CCEEET is directly responsible for 17 commitments, and works with partners in provincial departments to advance the remaining commitments contained in the Action Plans and providing support and assistance where requested.

In 2012, the Minister responsible for CCEEET gave the first update in the House of Assembly on the progress of the commitments contained in the 2011 Climate Change and Energy Efficiency Action Plans. Looking ahead to 2014, a progress report will be issued that provides an update on the implementation of the commitments in the Action Plans.

Clean16 Award

In 2012, CCEEET was recognized as a leader on sustainable public policy in Canada when it won the prestigious *Clean16* award for 2013. The awards were established in 2011 to recognize Canadian leaders in sustainability. The awards are made annually to individuals and teams across 16 separate categories including clean technology, clean energy generation and the public sector.

CCEEET was the winner of the public sector category and was praised for showing strong leadership. CCEEET was recognized for the development of the 2011 Climate Change and Energy Efficiency Action Plans, and the ambitious targets and rigorous accountability frameworks.

Large Industrial Sector

The *Charting Our Course: Climate Change Action Plan 2011* committed government to develop, and publicly release, a detailed approach to reducing greenhouse gas emissions in the large industrial sector. The large industrial sector accounted for 46% of greenhouse gas emissions in the province in 2011, and actions to reduce emissions in this sector are necessary to achieve the province's long-term greenhouse gas reduction goals. The Office completed a third round of consultations with the large industrial sector in the province in 2012/13. The Office is also working with the federal government to ensure that any provincial initiatives that may be undertaken align with federal regulatory development initiatives. This work is complex, has spillover effects to economic and fiscal policy, and is impacted by parallel regulatory development initiatives at the federal level and in other provinces. In this context, progress is dependent, in part, on the pace of regulatory developments elsewhere.

Climate Monitoring

In 2012/13, the Office released a study of climate change monitoring capabilities in Newfoundland and Labrador. The study contained an inventory of all existing, planned and discontinued climate monitoring stations in Newfoundland and Labrador. This inventory captured key details included variables that are measured at each station, and how the public can access the data. The study also contained a comprehensive analysis of the needs of the climate data user community. A set of recommendations was developed to strengthen the province's ability to monitor climate change in the province. The Office

has established an interdepartmental working group to consider the recommendations and develop next steps.

4. Report on Performance

March 31, 2013 marks the end of the second year of the Office's three year business plan for 2011-14. The plan identified two business issues that will guide the work of the Office over 2011-14: climate change adaptation; and energy efficiency and greenhouse gas reduction. This section reports on the goals for each issue, as well as the objectives for the 2012-13 year in support of those goals.

Issue 1: Climate Change Adaptation

The Earth's climate is changing. Globally, each of the last three decades has been the warmest on record, and in the Arctic the warming is now occurring twice as fast as the rest of the world. In Newfoundland and Labrador, our climate is being affected and, with it, other changes to our environment are being seen, such as sea-level rise, more intense weather events and milder winter ice conditions in Labrador.

As a result of these changes, a key part of the overall response to climate change is adapting to the impacts of climate change. Governments, communities, businesses and individuals need to understand, plan for, and respond to climate change to enhance the province's resilience and position it to prosper through anticipated changes. This could include, for example, new community planning practices to avoid areas at risk of flooding or sea-level rise, building infrastructure to higher standards, and identifying and managing risks to businesses.

Climate change adaptation goals support the strategic directions of government as communicated through the Minister Responsible for Climate Change, Energy Efficiency and Emissions Trading to advance the province's ability to understand and adapt to climate change.

In *Charting Our Course: Climate Change Action Plan 2011*, the Provincial Government set out a goal to enhance the province's resilience to climate change, recognizing that "efforts to reduce greenhouse gas emissions must of course go hand-in-hand with moves to adapt to unavoidable impacts of climate change."

Goal 1: By 2014, the Office will have advanced initiatives towards improving the province's preparedness and resilience for the impacts of climate change. **Measure:** Initiatives are developed and advanced.	**Indicators:** • Released a Climate Change Action Plan. • Supported the implementation of the Climate Change Action Plan. • Advanced initiatives to strengthen the understanding of the impacts of climate change on the province. • Enhanced collaboration with other levels of government, industry, communities and researchers on climate change impacts and adaptation. • Developed initiatives to strengthen public knowledge and awareness about climate change.

Objective 1.2	By March 31, 2013, the Office will have increased the province's capacity to understand and adapt to the impacts of climate change.

Measure: Provincial capacity to understand and adapt is increased.

Indicators:	**Progress**
Advanced initiatives to strengthen the understanding of the impacts of climate change on the province.	**<u>Public Awareness:</u>** On September 17, 2012, *Turn Back the Tide*, the province's first-ever public awareness campaign on climate change and energy efficiency, was launched. The campaign targets all Newfoundlanders and Labradorians and aims to increase awareness and inspire action. *Turn Back the Tide* is a broad based media campaign with television, print and online advertising all driving people back to a 'one-stop-shop' website. The site has an adaptation section that describes climate change and how it will impact Newfoundland and Labrador. The site encourages communities and businesses to understand, plan for and respond to a changing climate, and provides valuable information on developing a plan, flood risk management, land use planning, intensity-duration-frequency curves, and weather conditions. **<u>Climate Change Projections:</u>** In 2012-13, the Office completed a significant study of climate change projections for Newfoundland and Labrador for the late 20th century to the mid-21st century. The study included seven simulations from four internationally recognized global models to make projections at the local level for the province. The main

	projections for temperature and precipitation used regional data from 12 weather stations in Newfoundland and 6 stations in Labrador, ensuring that local conditions were included in the study. This study was a foundational piece of work for the Office and will be of benefit to governments, businesses, organizations and individuals making long-term planning decisions. This work will result in improved infrastructure decisions for transportation and municipal planners, and industries such as agriculture, forestry and tourism can better identify and plan for longer term economic development opportunities and risks. The Office will begin the rollout of this information to the public and key stakeholders in 2013-14.
Continued implementation of the Climate Change Action Plan.	2012-13 marked the strategy's second year for implementation of *Charting Our Course: Climate Change Action Plan 2011*. The plan contains 75 commitments that are owned across 13 government departments for delivery over a 5-year period. The Office continued to lead interdepartmental processes to support implementation of the Climate Change Action Plan, including supporting Ministerial and Deputy Ministerial Committees on Climate Change and Energy Efficiency. CCEEET is also responsible for 17 commitments contained in the Action Plan. Some of the highlights of 2012-13 that have contributed towards the implementation of commitments in the Action Plan include: • Undertaking the study on climate change projections (outlined above). • The Office distributed the findings of a climate monitoring study to all key partners in government so that the findings could aid in their work. CCEEET established an internal climate monitoring working group to consider the findings of the report and determine the next steps. One of the key recommendations contained in the report was to advance work to better understand what the climate change projections for the province would be for the next 50 years. Work began in 2012-13 to understand what the future climate would look like for Newfoundland and Labrador, and results are expected in 2013-14. • Entering into a partnership with the Nunatsiavut

	Government (NG) to help combat climate change in northern Labrador through supporting the NG's Sustainable Communities Initiative will help ensure that Inuit communities have the information and support needed to adapt to the already occurring and unavoidable impacts of climate change, while also improving resilience.
Enhanced collaboration with other levels of government, industry, communities and researchers on climate change impacts and adaptation.	The Office has taken a proactive role to extend and deepen links with key stakeholders to enhance the information and understanding of climate change impacts and adaptation. **Industry/Business:** • In Newfoundland and Labrador, climate change will bring a number of impacts like more severe weather, flooding, sea-level rise and coastal erosion. These changes will have a direct impact on business activity by affecting employees, customers, supply chains, and community and business infrastructure. The *Turn Back the Tide* website includes information on how businesses can adapt to a changing climate, which explains that adapting to climate change is a form of risk management. It provides sources of information and tips for businesses. • The *Turn Back the Tide* website profiles local case studies showcasing the actions that local communities and businesses have taken to adapt to climate change. • CCEEET presented to the Clarenville Rotary Club (December 10, 2012) to highlight how climate change will impact the province and how businesses can prepare for these challenges and opportunities. **Intergovernmental:** • CCEEET worked with the Nunatsiavut Government as they led a project to identify ways to better engage northern Labrador communities on issues pertaining to climate change adaptation, and to promote best practices in community development in the north through appropriate planning and building practices to support long-term sustainability. • CCEEET participated on a Federal/Provincial committee

	looking at how climate change will impact important coastal archaeological resources. The project is focused on identifying and understanding the valuable archaeological resources that are at risk due to a changing climate. The committees is also investigating how the loss of these sites could economically impact local areas and what steps can be taken to preserve historical sites. • CCEEET participated on the Federal Provincial Adaptation Platform, which is focused on better understanding climate change adaptation in Canada. CCEEET represented Newfoundland and Labrador on working groups focused on northern communities, measuring progress, economics and energy. • CCEEET participated in the Regional Oversight Committee on Oceans Management, held January 9, 2013. This committee is co-chaired by both the federal and provincial governments and is a forum to facilitate information exchange between governments and across departments, with respect to activities, issues, and opportunities related to coastal and oceans management in Newfoundland and Labrador. • CCEEET represented Newfoundland and Labrador at the International Polar Year Conference, held in Montreal April 22-27, 2012. The conference theme was *Knowledge to Action*, and was one of the largest and most important scientific conferences for polar science and climate change impacts and adaptation. Officials also used the opportunity to meet with representatives from the Nunatsiavut Government and with academics working on northern issues relating to climate change. • CCEEET participated in a workshop on May 29, 2012 called *Arctic and Northern Economic Development: Maximizing the Benefits for Newfoundland and Labrador*. The workshop explored the issues (challenges and opportunities) for Newfoundland and Labrador to maximize benefits from Arctic & Northern economic development. The purpose of the workshop was to gather representatives from the Federal and Provincial Governments, as well as academic organizations, to discuss current initiatives/activities, emerging opportunities and existing gaps in our ability to

	maximize benefits for Newfoundland and Labrador. • CCEEET participated at a workshop on November 27, 2012 held by the Atlantic Canada Adaptation Solutions, which is a partnership of the Governments of New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador, who are working together with the Government of Canada to help Atlantic Canadians better prepare for, and adapt to, climate change. The event focused on issues such as saltwater intrusion, flood risk mapping, and community climate change adaptation planning. • CCEEET represented Newfoundland and Labrador on Canada's delegation to the United Nations Climate Change Conference in Doha, Qatar, held November 26-December 8, 2012. Adaptation to climate change was a key focus of the conference, in particular how developed countries adapt to the impacts of climate change. **Researchers** • CCEEET conducted a series of meetings at Sir Wilfred Grenfell College in Corner Brook on February 11 and 12, 2013. The goal was to advance and strengthen the linkages between the Office and the local research community. The college has an Environmental Policy Institute, which acts as a knowledge hub between environmental science and policy. • CCEEET engaged with researchers at Memorial University on a variety of adaptation issues, including adaptation in the north and the impact of climate change on heritage sites. **Communities** • CCEEET participated in the Municipalities Newfoundland and Labrador annual conference in Gander (October 4-6, 2012). The Office had an information booth to assist municipalities in understanding how communities will be impacted by climate change. • The Minister responsible for CCEEET presented at a Coastal Matters seminar session in Corner Brook (November 7, 2012) organized by ACAP Humber Arm. The Minister discussed *Turn Back the Tide* and how climate change will

	impact the west coast of the island.

Objective 1.3	By March 31, 2014, the Office will have promoted the integration of climate change impacts into government's decision-making in Newfoundland and Labrador.
Measure: Promotion of the integration of climate change impacts into decision-making.	
Indicators: • Enhanced collaboration with key provincial departments and agencies on climate change, including developing tools and resources to help integrate climate change impacts into government planning and decision-making. • Continued implementation of the Climate Change Action Plan.	

Issue 2: Energy Efficiency and Greenhouse Gas Reduction

Energy Efficiency

We rely on energy throughout our day to heat and light our homes, power our computers and equipment at work, and fuel our cars and trucks to get where we need to be. Our lives, and indeed our entire economies, rely on the use of energy. Over time our use of energy has grown significantly. The size of an average home in Canada continues to increase, and there are a larger number of lights, appliances and electronics in households today.

Energy efficiency refers to using less energy to provide the same or better level of service. It can also include insulating a basement or installing high-efficiency windows to reduce energy costs while increasing comfort levels, or buying only those computers and appliances that are ENERGY STAR certified – the gold standard in energy efficiency for home and office products. This can include simple and no-cost actions such as turning off lights and televisions when they are not in use, powering down office equipment at the end of the day, and not idling vehicles.

Energy efficiency plays a key role in the battle against climate change. It reduces reliance on carbon-intensive fuels like gasoline and oil, but it also has a much wider set of economic benefits such as lower energy bills for households, improved business competitiveness, increased power to export to other jurisdictions, improved consumer welfare and lower local air pollutants.

Energy efficiency goals support the strategic directions of government as communicated through the Minister Responsible for Climate Change, Energy Efficiency and Emissions Trading to support the promotion of energy efficiency and the reduction of greenhouse gas emissions in Newfoundland and Labrador.

In *Moving Forward: Energy Efficiency Action Plan 2011*, the Provincial Government set a goal to support a major shift in the uptake of energy efficiency, recognizing the "tremendous opportunity for economic development and environmental progress" that energy efficiency offers. The Action Plan reaffirms Government's commitment to the Conference of New England Governors and Eastern Canadian Premier's target of reducing overall energy use by 20 per cent by 2020 from business-as-usual projections.

Greenhouse Gas Reduction

The Earth is surrounded by a layer of naturally occurring gases that include water vapour, carbon dioxide, methane and nitrous oxide. These are commonly referred to as greenhouse gases because, like the walls of a greenhouse, they trap some of the heat from the sun in the Earth's atmosphere. Without these gases, the Earth would be too cold to support life we as know it.

Over the past 150 years, humans have been adding significantly to this layer by releasing more and more greenhouse gases through burning increasing quantities of oil, gas and coal, cutting down trees and clearing land. Now there is too much of these gases in the Earth's atmosphere. In the last 100 years, concentrations of carbon dioxide have increase by 40 per cent, methane by 150 per cent and nitrous oxide by 20 per cent. These gases are trapping too much heat and this is causing the global average temperature to increase and the earth's climate to change. The concentration of greenhouse gas emissions reached 400 parts per million (ppm) in 2013, the first time in human history that this threshold was exceeded.

Greenhouse gas reduction goals support the strategic directions of government as communicated through the Minister Responsible for Climate Change, Energy Efficiency and Emissions Trading to support the promotion of energy efficiency and the reduction of greenhouse gas emissions in Newfoundland and Labrador.

In *Charting Our Course: Climate Change Action Plan 2011*, the Provincial Government recognized that Newfoundland and Labrador "must be part of the solution and play its part in responding to climate change." A key goal of the plan was reducing greenhouse gas emissions in the province. In the Action Plan, Government reaffirmed its commitment to purse the targets of the Conference of New England Governors and Eastern Canadian Premiers (NEG-ECP) on a provincial basis. This includes reducing greenhouse gas emissions by 10 per cent below 1990 levels by 2020 and 75-85 per cent below 2001 levels by 2050.

Goal 2: By 2014, the Office will have supported actions to reduce greenhouse gas emissions and promote energy efficiency in Newfoundland and Labrador.	**Indicators:** • Released a Climate Change Action Plan and an Energy Efficiency Action Plan. • Supported the implementation of a Climate Change Action Plan and an Energy Efficiency Action Plan. • Improved the evidence base to support decision making and

Measure: Actions that reduce greenhouse gas emissions and promote energy efficiency are supported.	policy development, including updating greenhouse gas projections and monitoring trends over time. • Implemented a public awareness campaign designed to strengthen the public's understanding and awareness of the importance of energy efficiency and reducing greenhouse gases. • Represented the province's interests with the federal government and in intergovernmental meetings at the officials' level.

Objective 2.2	By March 31, 2013, the Office will have advanced initiatives to strengthen the evidence base and improve the province's capacity to promote energy efficiency and reduce greenhouse gas emissions.
Measure: Provincial capacity to promote energy efficiency and reduce greenhouse gas emissions is increased.	
Indicators:	**Progress**
Advanced initiatives to strengthen understanding of the importance of energy efficiency and reducing greenhouse gas emissions.	**<u>Public Awareness:</u>** On September 17, 2012, *Turn Back the Tide*, the province's first-ever public awareness campaign on climate change and energy efficiency, was launched. The *Turn Back the Tide* website contains a wealth of resources to help strengthen the understanding of the importance of energy efficiency and reducing greenhouse gas emissions, as well as information on practical actions that can be taken. The site features two innovative, custom-designed interactive tools: (1) a visual Interactive House enables users to navigate areas in and around the home and receive tips on ways to take action, and (2) a Carbon Calculator to help individuals understand the impact of their activities. Individuals can see how their impact compares to the provincial average, and receive customized suggestions on how to reduce their carbon footprint. In 2012-13 CCEEET began work to create a similar carbon calculator that would capture the impact of Municipal Governments. The rollout of this tool will take place in 2013-14.
Continued implementation of the Climate Change and Energy	*Charting Our Course*, had a goal to "reduce greenhouse gas emission in Newfoundland and Labrador," and it reaffirmed the

Efficiency Action Plans.	Provincial Government's commitment to achieve the greenhouse gas reduction targets of the Conference of the New England Governors – Eastern Canadian Premiers (NEG-ECP) on a provincial basis. These are to stabilize greenhouse gas emissions at 1990 levels by 2010, and to reduce greenhouse gas emissions by 10 per cent below 1990 levels by 2020 and 75-85 per cent below 2001 levels by 2050. In *Moving Forward*, one of the goals was to "support a major shift in the uptake of energy efficiency". As part of the Action Plan, the Provincial Government reaffirmed its commitment to the target set by the Conference of NEG-ECP to reduce energy consumption by 20 per cent by 2020 from business as usual projections. 2012/13 marked the second year for the implementation of *Charting Our Course: Climate Change Action Plan 2011* and *Moving Forward: Energy Efficiency Action Plan 2011*. The Office continued to lead interdepartmental processes to support implementation of the Action Plans and achieve the goals and targets identified. This included supporting Ministerial and Deputy Ministerial Committees on Climate Change and Energy Efficiency. Some of the highlights of 2012-13 that have contributed toward the implementation of commitments include: • In 2012-13, CCEEET lead the development of a Guide to Building Energy Efficient Homes to convey the importance of energy efficiency and sustainability. Building more sustainably has benefits such as lowering fuel bills, reducing greenhouse gas emissions and helping to tackle climate change. The guide will provide details on the various methods and materials that can be used to build more energy efficient houses, and will be broken down by regions of the province. The guide will be released in 2013/14 and CCEEET will work with partners to ensure that the information is available for key stakeholders. • CCEEET participated in the Alternative Fuel Vehicle Conference (AFC), hosted by the NEG-ECP and held in Montreal on September 27, 2012. The AFV conference

	focused on the electrification of passenger transportation and the use of natural gas for heavy duty vehicles. It also provided information on best practices, the lessons learned, and the environmental, economic and social benefits of the emerging green economy of alternative fuel vehicles. • CCEEET led work to develop a cost-benefit analysis of commercial energy codes for buildings. CCEEET will use the findings and next steps will be determined in consultation with key stakeholders in 2013/14. • CCEEET presented at the *New Leef Conference* (October 24, 2012), which was hosted by the Newfoundland and Labrador Environmental Industry Association (NEIA) in St. John's. The objective of the conference was to highlight the opportunities that exist for Newfoundland and Labrador companies in the global shift to a low-carbon or green economy. CCEEET presented on the current status of the green economy in the province and government's commitments for this sector. The presentation highlighted a number of sectors which have been deemed to have the highest potential. • CCEEET presented at *Opportunities in the Green Economy for Rural Newfoundland,* which was hosted by the Strategic Partnership in Steady Brook, NL (November 9, 2012). The objective of the conference was to highlight how firms in rural locations in the province could benefit from opportunities in the green economy. CCEEET presented on work completed to identify the current state of the green economy in the province and highlighted sectors that offered the greatest potential for rural firms.
Enhanced collaboration with other levels of government, industry, communities and researchers to enhance information and understanding of energy efficiency and greenhouse gas emissions in Newfoundland and Labrador.	The Office has taken a proactive role to extend and deepen links with key stakeholders to enhance the information and understanding of promoting energy efficiency and reducing greenhouse gas emissions in Newfoundland and Labrador. **Industry/Business:** • In 2012-13 CCEEET completed a third round of consultations with the large industrial sector on the preferred approach to reducing greenhouse gas emissions in the sector. This work

is complex, has spillover effects to economic and fiscal policy, and is impacted by parallel regulatory development initiatives at the federal level and in other provinces. In this context, progress is dependent, in part, on the pace of regulatory developments elsewhere.

- In 2012-13, CCEEET worked closely with the Newfoundland and Labrador Environmental Industry Association (NEIA) and the Strategic Partnership to help profile the economic benefits associated with a global shift to low-carbon goods and services. CCEEET developed a dedicated portal for businesses on the *Turn Back the Tide* website, which profiled case studies of companies that are demonstrating strength and innovation in these areas.

- CCEEET participated on the Board of Directors of the Atlantic Chapter of the Canada Green Building Council (CaGBC). The CaGBC is a national organization that works to advance green building and sustainable community development practices in Canada. CaGBC is responsible for Leadership in Energy and Environmental Design (LEED) certification scheme for buildings which the provincial government is committed to strive for silver status for new buildings or major renovations through its *Build Better Buildings* policy. Engagement with CaGBC is increasing government knowledge and capacity on matters pertaining to sustainable buildings.

- CCEEET participates in the Government-Electrical Utilities Working Group on Energy Efficiency. The Office acted as chair and coordinated activities of the energy efficiency working group, established in 2010 with the Department of Natural Resources and the electrical utilities (Newfoundland and Labrador Hydro and Newfoundland Power). This group exchanges information and ideas, and provides a structure within the province to discuss energy efficiency policy.

- CCEEET presented at the *Build Green Atlantic Conference* held in St. John's (November 21, 2012). The event was focused on the opportunities in the green building sector and CCEEET presented on the *Turn Back the Tide* campaign and the opportunities in the sector.

- CCEEET participated in the annual *Home Show* organized by the Canadian Home Builders Association in St. John's (March 22-24, 2013). CCEEET provided an information booth to provide homeowners with information on how they could take action to reduce their carbon footprint and improve energy efficiency. Over 1600 people interacted with the booth.

Intergovernmental

The Office participated on a range of working groups focused on energy efficiency and greenhouse gas mitigation.

Energy Efficiency

- Steering Committee on Energy Efficiency – This committee, made up of federal, provincial and territorial senior officials, oversees the development and implementation of energy efficiency priorities of the Energy and Mines Ministers' Conference. There are several targeted working groups under this committee that CCEEET also participates on, including:
    - Built Environment and Equipment Working Group – This committee provides expert advice to the National Research Council on the development of model national energy codes for buildings and houses.
    - Transportation Working Group – This group is heavily focused on promoting fuel efficiency among heavy trucks in Canada through the provision of better information and tools. It is currently working to pilot the "Smart Way" program from the U.S. Environmental Protection Agency, which is specifically designed to help reduce greenhouse gas emissions and local air pollutants, and help truckers save on fuel costs through more fuel-efficient activities.
    - Industry Working Group – This group is focused on promoting the understanding and adoption of the ISO 50001 Energy Management Systems Standard, which provides organizations with a framework to

increase energy efficiency, reduce energy costs and improve energy performance.

- Canadian Advisory Committee on Energy Efficiency, which was initiated in 2011/12 to advance national collaboration and progress on product standards. Work in 2012/13 focused on information sharing regarding provincial and territorial initiatives.

Greenhouse Gas Mitigation:

The Office participated on a range working groups related to greenhouse gas reduction, including:

- Domestic Climate Change Committee on which there is federal, provincial and territorial representation. Activities related to greenhouse gas mitigation focused on the large industrial sector make up a large portion of this group's work under specific sub-working groups, including ones that deal with each industrial sector that may be regulated federally such as the oil and gas sector and a Deputy Minister-level group on greenhouse gas regulations for the industrial sector.

- The International Climate Change Committee is made up of Federal, Provincial and Territorial representatives. This Committee reviews progress in developing a new international approach to address climate change in place of the Kyoto Protocol. Its members often participate on Canada's delegation to the United Nation's Climate Change Conference each year.

- The working group on emissions trends and analysis is comprised of federal, provincial and territorial representatives. Its mandate is to provide advice to the federal government on the development and analysis of Canada's emission trends, and to promote information sharing between jurisdictions. To do this, it engages in consultation, exchanges information and undertakes projects related to Canadian climate change policy and emissions trends.

- Conference of the New England Governors - Eastern Canadian Premiers' Climate Change Steering Committee.

	The focus of the committee is to identify regional level strategies and initiatives to reduce greenhouse gas emissions. In 2012-13, the committee developed a new Action Plan to be presented in 2013-14. **Communities** • CCEEET is a member of a subcommittee of the *Mayor's Advisory Committee on Affordable Housing,* which looked at ways to expand and promote energy efficiency to new homes and the existing housing stock in the City of St. John's. • CCEEET also participated at a youth event associated with *New Leef* Conference (October 24, 2012) where information was given to participants on how they could improve energy efficiency and reduce greenhouse emissions. **Research** • CCEEET completed studies to identify greenhouse gas abatement opportunities in the offshore oil and iron ore mining industries. This included the development of necessary background information to inform the development of provincial policy for the industrial sector. CCEEET also began work on looking at possible abatement opportunities for the oil refining sector, this work will continue in 2013-14. • CCEEET, in partnership with North Atlantic Refining Limited, commissioned work to study the greenhouse gas abatement opportunities in the oil refinery at Come By Chance.

Objective 2.3	By March 31, 2014, the Office will have increased the integration of energy efficiency promotion and greenhouse gas emissions reduction into government's decision-making in Newfoundland and Labrador.

Measure: Increased integration of energy efficiency promotion and greenhouse gas emissions reduction into decision-making.
Indicators: • Enhanced collaboration on energy efficiency and greenhouse gas mitigation, including developing tools and resources to integrate energy efficiency and greenhouse gas considerations into government decision-making. • Continued implementation of the Climate Change and Energy Efficiency Action Plans.

5. Opportunities and Challenges

Opportunities

Climate change is not just an environmental issue; it is equally an economic, social and political issue. From an environmental perspective, jurisdictions agree that climate change is happening and requires prompt and serious action. Therefore, the key outstanding consideration is now an economic one: how will jurisdictions position their economies to ensure they maximize the opportunities, and minimize the risks, associated with operating in an increasingly greenhouse gas-constrained world. Those jurisdictions that engage proactively in the debate will be best placed to address these challenges effectively, as they will shape the rules and help prepare their economies for the fundamental changes to come. Jurisdictions that fail to grapple with this agenda may incur higher costs in long run, miss opportunities to seize new markets for low-emitting goods and services, and could be vulnerable to changing market realities (such as moves by other jurisdictions to erect trade barriers against those who have failed to take equivalent action to reduce emissions, as envisaged in the US).

There are strong economic imperatives to devise a clear path forward. The Intergovernmental Panel on Climate Change has found that, globally, the cost of reducing emissions is significantly less than the cost of responding to the adverse impacts associated with climate change. Moreover, independent think tanks have shown that delay in taking action to reduce emissions increases the overall cost of meeting emission reduction targets, by creating uncertainty for business and locking in less efficient capital stock. However, in the absence of a truly global approach to tackling climate change, a critical design consideration for any policy framework has to be the competitive implications of any jurisdiction-specific approach to reducing emissions, particularly with respect to key exporting industries that operate in multiple jurisdictions and whose product price is determined by international markets.

The lower Churchill River is one of the most attractive undeveloped hydroelectric sites in North America and is a key component of the province's energy warehouse. The Lower Churchill Hydroelectric Project comprises the 824 megawatt (MW) Muskrat Falls development and associated transmission links (Phase

One) and the 2250 MW Gull Island development (Phase Two). This important regional project will also help Newfoundland and Labrador, Nova Scotia, and other locations in North America grow their economies while reducing greenhouse gas emissions. This project will enable Newfoundland and Labrador Hydro to displace an estimated 1.2 million tonnes (Mt) of greenhouse gas emissions annually from its oil-fired thermal generating station in Holyrood – this is over 10% of the province's current emissions. With Muskrat Falls, the Newfoundland and Labrador electricity system will be 98% renewable, emission-free energy. Further, the project will support an estimated 1 Mt reduction in Nova Scotia and additional reductions of up to 2 Mt in other locations in North America.

A key priority for the Government of Newfoundland and Labrador is ensuring the province takes advantage of the economic development opportunities associated with the global transition to a low-carbon economy and greater energy efficiency. On a global scale, the market value of the green economy is estimated to be worth approximately US$5.2 trillion (Source: Globe, 2010). Nine key sectors have been identified as presenting real opportunities in this province in the green economy. A recent study commissioned by the Office in partnership with the Department of Innovation, Business and Rural Development concluded that with the right supports the green economy in Newfoundland and Labrador could grow by up to 30 percent by 2020.

Since all sectors (households, small businesses, large industry, government, etc.) are responsible for emitting greenhouse gas emissions, all sectors must contribute to reducing emissions. Without such economy-wide engagement, the costs and benefits of action will not be fairly distributed. In advancing work, there are opportunities to engage individuals to deepen understanding and capacity and drive action.

Challenges

Climate change is a global challenge but the impacts will be felt in our province. There is an extensive body of research on the impacts of climate change in Newfoundland and Labrador; however, as a large province, the impacts can vary from northern Labrador to eastern Newfoundland and locations in between. As a result, a key challenge as the Provincial Government implements its Climate Change Action Plan is to continue to develop, gather, and interpret developments on climate science to ensure the province's efforts to promote adaptation are based on sound evidence, effective, and well-targeted across the province.

In the 2011 Climate Change and Energy Efficiency Action Plans, the Provincial Government made clear that intergovernmental collaboration will be key to achieving progress. Globally, the main forum to shape a response to climate change has been the *United Nations Framework Convention on Climate Change*. However, progress towards a new global agreement has been slow and there is no certainty when consensus can be reached. These negotiations affect Newfoundland and Labrador as any agreement endorsed by the federal government would set out their commitments, which it would then have to take forward in collaboration with provinces and territories. The federal government has committed to reduce its greenhouse gas emissions by 17 per cent below 2005 levels by 2020. The federal government continues to develop its policy approach on climate change, with measures in place

for transportation and coal-fired electricity, but its approach to other sectors of interest to the province including oil and gas, mining, and pulp and paper remains uncertain.

In *Charting Our Course*, the Provincial Government reaffirmed its targets for greenhouse gas reduction, stating they are "designed to challenging to motivate action and raise levels of ambition". Recently revised data has shown that Newfoundland and Labrador did not meet the target set for 2010, namely, to reduce greenhouse gas emission levels to 1990 levels. However, the province came within 1.3% of achieving the target (this number may continue to fluctuate as revised data will be released in 2014). Earlier data (released in 2012) indicated that the province had in fact achieved the target. There are challenges on the horizon as the province's works to achieve its 2020 target (10 per cent below 1990 levels). Even accounting for the Muskrat Falls hydroelectric project, which would deliver 55 per cent of the reductions needed, greenhouse emissions could grow from current levels 9.3Mt to as much as 10.0 MT depending on the pace and timing of new industrial developments by 2020. This heightens the need for the Climate Change Action Plan and its implementation, as well as identifying any further policy measures that may be necessary to achieve the 2020 target.

The Provincial Government also has an ambitious, but challenging, target for energy efficiency. In *Moving Forward,* Government reaffirmed its commitment to the target of the Conference of New England Governors and Eastern Canadian Premiers to reduce overall energy use by 20 per cent by 2020 from business-as-usual projections. This builds on a 2008 commitment by the Council of the Federation to improve energy efficiency by 20 per cent by 2020. Energy efficiency initiatives offer considerable opportunities for the province but barriers exist, including low awareness of what can be done and uncertainty about how long the original costs can be recouped by lower energy costs over time. The public awareness campaign is specifically targeted at promoting more uptake of energy efficiency and overcoming some of the common barriers, such as lack of information and uncertainty about available programs.

6. Appendix A: Strategic Directions

Strategic directions are the articulation of desired physical, social or economic outcomes that normally require action by more than one government entity. These directions are generally communicated by government through platform documents, Throne and Budget Speeches, policy documents and other communiqués. The Transparency and Accountability Act requires departments and public bodies to take into account these strategic directions in the preparation of their performance-based plans. This action will facilitate the integration of planning practices across government and will ensure that all entities are moving forward on key commitments.

The direction related to the Office of Climate Change, Energy Efficiency and Emissions Trading is provided below.

Title: **Climate Change and Energy Efficiency**

Outcome: A province that has advanced its capacity to reduce greenhouse gas emissions, adapt to the impacts of climate change and improve energy efficiency.

Components of Strategic Direction	This Direction is Addressed in entity's		
	Business Plan	Operational Plan	Work Plan
Released a Climate Change Action Plan and an Energy Efficiency Action Plan.	X		
Advanced the province's ability to understand and adapt to climate change	X		
Supported the promotion of energy efficiency and the reductions of greenhouse gas emissions in Newfoundland and Labrador	X		

7. Appendix B: Financial Statements

Expenditure and revenue figures included in this document are un-audited and based on public information provided in the Report on the Program Expenditures and Revenues of the Consolidated Revenue Fund for the year ending March 31, 2013. Audited financial statements are a requirement at the government level and are made public through the Public Accounts process. The Office is not required to submit a separate audited financial statement.

Item	2012-13 Budget	2012-13 Revised
Salaries	$796,000.00	$659,000.00
Employee Benefits	$2,800.00	$2,800.00
Transportation and Communications	$58,000.00	$39,000.00
Supplies	$10,000.00	$8,500.00
Professional Services	$280,000.00	$400,900.00
Purchased Services	$20,000.00	$24,000.00
Property, Furnishings and Equipment	$2,000.00	$2,000.00
Total	$1,168,800	$1,136,200

The Office of Climate Change, Energy Efficiency and Emissions Trading
5th Floor, West Block, Confederation Building
P.O. Box 8700, St. John's, NL, A1B 4J6
Tel: (709) 729-1210
Fax: (709) 729-1119
climatechange@gov.nl.ca
www.exec.gov.nl.ca/exec/cceeet